# Santa Monica Bay National Estuary Program Comprehensive Monitoring Program

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### **Common Acronyms**

ASBS Areas of Special Biological Significance
BWER Ballona Wetlands Ecological Reserve

CCMP Comprehensive Conservation and Management Plan (formerly Bay

Restoration Plan)

CCVA Climate Change Vulnerability Assessment CDFW California Department of Fish and Wildlife

CMP Comprehensive Monitoring Program
CNRA California Natural Resources Agency
CoSMoS Coastal Storm Modelling System
CRAM California Rapid Assessment Method

CRI Loyola Marymount University's Coastal Research Institute

FMP Fishery Management Plan

HAB Harmful Algal Bloom

LACDBH Los Angeles County Department of Beaches and Harbors

LACDPH Los Angeles County Department of Public Health LACDPW Los Angeles County Department of Public Works

LACFCD Los Angeles County Flood Control District
LACSD Sanitation Districts of Los Angeles County
LADWP Los Angeles Department of Water and Power

LASAN City of Los Angeles Sanitation

LCP Local Coastal Plan

LVMWD Las Virgenes Municipal Water District

MPA Marine Protected Area
NEP National Estuary Program

NMFS National Oceanic and Atmospheric Administration's National Marine

Fisheries Service

NOAA National Oceanic and Atmospheric Administration NPDES National Pollutant Discharge Elimination System

NPS National Parks Service
OPC Ocean Protection Council

RCDSMM Resource Conservation District of the Santa Monica Mountains

SCC California State Coastal Conservancy

SCCOOS Southern California Ocean Observing Systems
SCCWRP Southern California Coastal Water Research Project

SCMI Southern California Marine Institute

SLR Sea Level Rise

SMBNEP Santa Monica Bay National Estuary Program SMBRC Santa Monica Bay Restoration Commission

SotB State of the Bay

State Parks California Department of Parks and Recreation

SWRCB State Water Resources Control Board

### SMBNEP Comprehensive Monitoring Program

TAC Santa Monica Bay Restoration Commission Technical Advisory

Committee

TBF The Bay Foundation

TMDL Total Maximum Daily Load

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

USGS United States Geological Survey

# **Acknowledgements**

- TAC Members
- Additional Subgroup Members
- NEP contributing staff
- Key contributing members of the public or partner agencies
- Additional scientific advisors AND State of the Bay authors not listed above (pulling much of the habitat intro material directly from SotB Report)
- Contributing members of the Management Conference

# **Executive Summary**

### Introduction

Overview of Comprehensive Monitoring Program

This section should explain how monitoring has/will change as a result of new/modified actions and priorities, and any new environmental indicators. This section will also explain the structure of the document and how the document was drafted.

This CMP will also inform a Quality Assurance Program Plan (QAPP) for SMBNEP.

### Monitoring Program Objectives

USEPA funding guidance for NEPs states that Monitoring Programs should "track and detect changes and/or improvements within the study area, and effectiveness of CCMP Actions" (USEPA 2020). This can be achieved through the assessment of data collected to inform key indicators over time. The intent of this CMP is to inform condition changes within the NEP study area (Figures 1 and 2), and to be summarized in State of the Bay Reports, produced approximately every five years, and more frequent summary reports, as needed. When possible, the CMP replicates or modifies relevant indicators from the USEPA Report on the Environment (USEPA ROE 2019) for the water and land use categories.

### TAC – should additional detail be included here?

### Indicator Development

Discussion of expansion and CMP revision utilizing subgroups since SotB Report 2015, with emphasis on applying data from existing monitoring programs, identifying relevant indicators and those that could be optimized to provide more informative data (e.g., indices).

Table 1.1. Indicator categories consistent across all habitat types.

Indicator Category	Description
Habitat Extent	Functional habitat area, including gain or loss (e.g., fragmentation, accessibility, temporal variability, etc.). Some habitats contain multiple zones.
Biological / Ecological Condition	The state of the ecological system, including biological or ecological characteristics and the processes and interactions that connect them (USEPA ROE 2019). Condition may be represented by status or changes to individuals, populations, communities, and ecosystems

Indicator Category	Description
	(e.g., presence of amphibian species in streams, reproductive success of nesting shorebirds, or an index of fish diversity).
Stressors	Human-induced changes in physical, chemical, and biological properties that impact (posing potential risk or disturbance to) the condition of habitat such as exposure to waste and storm water discharges, nutrient and chlorophyll concentrations, channel morphology of streams and tidal wetlands, abundance of invasive species, eutrophication, fishing pressure, and the intensity of collection activities.
Climate Change Vulnerability	Impacts caused by or associated with one or more of the following climate change stressors: warmer temperatures, warmer waters, increasing drought, increasing storminess, sea level rise, or ocean acidification.

# **Partnerships**

Section on relying on partners to collect much of the relevant data associated with monitoring program details in the subsequent chapters.

TAC – any sections missing from the introduction here?

# **Literature Cited**

USEPA's Report on the Environment: <a href="https://cfpub.epa.gov/roe/chapter/eco/index.cfm">https://cfpub.epa.gov/roe/chapter/eco/index.cfm</a> (Latest Update: May 2019).

USEPA Funding Guidance (2020)